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(21)Application number : **63-263877** (71)Applicant : **NIPPON STEEL CHEM CO LTD**  
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## (54) PREPARATION OF CARBON 13-MARKED 5-AMINOLEVULINIC ACID AND DERIVATIVE THEREOF

### (57)Abstract:

PURPOSE: To provide porphobilinogen in a high yield by obtaining carbon 13-marked 5-aminolevulinic acid from sodium acetate marked with 13C at the 1 and/or 2 positions thereof as a starting raw material through an intermediate such as ethyl bromoacetate and subsequently condensing the prepared carbon 13-marked 5-aminolevulinic acid.

CONSTITUTION: 5-Aminolevulinic acid marked with carbon 13 at least one of the 1, 3, 4 and 5-positioned carbons thereof is obtained from sodium acetate marked with carbon 13 at the 1 and/or 2-positions thereof as a starting raw material through ethyl bromoacetate, Meldrum's acid or phthaloylglycine compound derived from the carbon 13-marked sodium acetate as an intermediate. The prepared 5-aminolevulinic acid marked with carbon 13 is condensed using a dehydrogenase to give porphobilinogen(PBG) marked with the carbon 13 at least two carbon atoms thereof. The PBG is useful as a diagnostic agent for plumbism, etc.

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